

CLAIMS

What is claimed is:

1. A contactless data communication system, comprising:

a reader-writer device; and

a contactless identification tag,

the reader-writer device including:

a data communication means that is capable of data communications with the contactless identification tag; and

an electromagnetic wave transmission means for supplying power that transmits an electromagnetic wave for supplying power to the contactless identification tag at the time of data communications by the data communication means; and

the contactless identification tag including:

a driving electric power generation means that generates driving electric power from the electromagnetic wave for supplying power transmitted from the reader-writer device;

an attachment means that attaches the contactless identification tag to a given object;

a detachment detection means that detects whether the contactless identification tag attached to the given object by the attachment means is detached from the given object; and

a specific information display means which displays specific information based on a detection result obtained by the detachment detection means.

2. The contactless data communication system claimed in claim 1, further comprising:

a detection result transmission means that transmits information indicating detachment of the tag to the reader-writer device if the detachment detection means detects that the contactless identification tag is detached from a given object.

3. The contactless data communication system claimed in claim 1, wherein the specific information display means displays information indicating the detachment of the tag as the specific information if the detachment detection means detects that the contactless identification tag is detached from a given object.

4. The contactless data communication system claimed in claim 1, wherein the detachment detection means comprises a voltage monitoring circuit that monitors a voltage, a part of a circuit wiring composed of the contactless identification tag is coupled to the voltage monitoring circuit, and the wiring is disconnected if the contactless identification tag is detached from a given object so as to detect that the contactless identification tag is detached by detecting a voltage change caused by the disconnection of the wiring.

5. The contactless data communication system claimed in claim 1, wherein the specific information display means includes a display device having memory ability.

6. In a contactless data communication system, a contactless identification tag comprising:

a driving electric power generation means that generates the driving electric power from an electromagnetic wave for supplying power transmitted from the reader-writer device;

an attachment means that attaches the contactless identification tag to a given object;

a detachment detection means that detects whether the contactless identification tag attached to the given object by the attachment means is detached from the attachment means; and

a specific information display means that displays specific information based on the detection result obtained by the detachment detection means.

7. The system claimed in claim 6, wherein the contactless identification tag further comprises:

a detection result transmission means that transmits information indicating the detachment of the tag to the reader-writer device if the detachment detection means detects that the contactless identification tag is detached from a given object.

8. The system claimed in claim 6, wherein the specific information display means displays information indicating the detachment of the tag as the specific information if the detachment detection means detects that the contactless identification tag is detached from a given object.

9. The system claimed in claim 6, wherein the detachment detection means comprises a voltage monitoring circuit that monitors a voltage, a part of a circuit wiring composed of the contactless identification tag is coupled to the voltage monitoring circuit, and the wiring is disconnected if the contactless identification tag is detached from a given object so as to detect that the contactless identification tag is detached by detecting a voltage change caused by the disconnection of the wiring.

10. The system claimed in claim 6, wherein the specific information display means comprises a display device having memory ability.

11. A contactless identification tag system comprising:

a contactless identification tag including:

a driving electric power generation means that generates the driving electric power from an electromagnetic wave for supplying power transmitted from the reader-writer device;

an attachment means that attaches the contactless identification tag to a given object;

a detachment detection means that detects whether the contactless identification tag attached to the given object by the attachment means is detached from the attachment means; and

a specific information display means that displays specific information based on the detection result obtained by the detachment detection means; and

a program that controls the contactless identification tag including:

a detachment detection step that detects whether the contactless identification tag attached to a given object by the attachment means is detached from the object; and

a specific information display step that displays specific information based on a detection result obtained as a result of the detachment detection step.

12. The system claimed in claim 11, wherein the detachment detection step includes a detection result transmission step that transmits information indicating the detachment of the tag to the reader-writer device if it is detected that the contactless identification tag is detached from a given object in the detachment detection step.

13. The system claimed in claim 11, wherein the specific information display step displays information indicating the detachment of the tag as the specific information if it is detected that the contactless identification tag is detached from a given object in the detachment detection step.